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EXAMINER

LAMB, BRENDA A

ART UNIT

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1792

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DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@hahnlaw.com  
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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 07-278754.

JP '754 teaches the design of a hot dip coating apparatus which is comprised of the following elements: a bath of molten coating alloy containing Al-Zn alloy; at least one component immersed in the bath of coating alloy containing Al-Zn alloy, the at

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least one component having a surface that comes into contact with the bath when in use, wherein the at least one component is made from stainless steel. JP '754 teaches the component can be made of stainless steel having a greater than 0.1 wt % of nitrogen, a known austenite stabilizer, to increase corrosion resistance and inherently the nitrogen is distributed substantially uniformly throughout its microstructure since it is known in casting the components of the metal in a molten state that the components are uniformly dispersed therein. Thus every element of the claimed apparatus as set forth in claim 1 is taught by JP '754. With respect to claim 3, JP '754 teaches parts of the hot dip coating apparatus which comes in contact with the Al-Zn alloy and the at least one component of the hot dip coating apparatus is a sink roll. JP '754 sink roll, known to be positioned in the Al-Zn alloy dip coating apparatus bath, is positioned such that a steel strip is capable of traveling relative to the sink roll in the manner set forth in the claims since it teaches every element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 4, the recitation that at least one layer of the component is made of a stainless steel having a greater than 0.1 wt % of nitrogen does not structurally further limit the JP '754 apparatus over that of applicant since JP '754 entire component is

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made of a stainless steel within the scope of the claim. The same rejection applied to claim 3 is applied to claim 11.

Claims 6-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 07-278754.

JP '754 is applied for the reasons noted above. JP '754 fails to teach the at least one component includes a further layer and the above recited stainless steel layer is disposed between the surface and the further layer. However, it would have been prima facie obvious to modify the JP '754 roll by providing an additional layer of the recited stainless steel layer over the recited materials for the obvious advantage of increasing the wear resistance of the roller.

Claims 1, 3-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by HANDA ET AL 5,783,143.

HANDA ET AL teaches the design of a hot dip coating apparatus which is comprised of the following elements: a bath of molten coating alloy containing Al-Zn alloy; at least one component immersed in the bath of coating alloy containing Al-Zn alloy, the at least one component having a surface that comes into contact with the bath when in use, wherein the at least one component is made from stainless steel. HANDA ET AL teaches the component can be made of stainless steel having a greater than 0.1 wt % of nitrogen, a known austenite stabilizer, to increase corrosion resistance and inherently the nitrogen is distributed substantially uniformly throughout its microstructure since it is known in centrifugal casting the components of the metal in a molten state that the components are uniformly dispersed therein. Thus every element of the claimed

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apparatus as set forth in claim 1 is taught by HANDA ET AL. With respect to claim 3, HANDA ET AL teaches parts of the hot dip coating apparatus which comes in contact with the A1-Zn alloy and the at least one component of the hot dip coating apparatus is a sink roll. HANDA ET AL sink roll, known to be positioned in the A1-Zn alloy dip coating apparatus bath, is positioned such that a steel strip is capable of traveling relative to the sink roll in the manner set forth in the claims since it teaches every element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 4, the recitation that at least one layer of the component is made of a stainless steel having a greater than 0.1 wt % of nitrogen does not structurally further limit the HANDA ET AL apparatus over that of applicant since HANDA ET AL entire component is made of a stainless steel within the scope of the claim. The same rejection applied to claim 3 is applied to claim 11.

Claims 6-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HANDA ET AL 5,783,143.

HANDA ET AL is applied for the reasons noted above. HANDA ET AL fails to teach the at least one component includes a further layer and the above recited stainless steel layer is disposed between the surface and the further layer. However, it

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would have been prima facie obvious to modify the HANDA ET AL roll by providing an additional layer of the recited stainless steel layer over the recited materials for the obvious advantage of increasing the wear resistance of the roller.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ookouchi et al 5,571,327 in view of Japan 07-278754 (hereinafter referred to as JP '754).

JP '754 is applied for the reasons noted above. JP '754 fails to teach passing the steel strip about the component within the molten coating alloy. However, Ookouchi et al teaches an apparatus and method of coating a steel strip manufacturing a sink roller for a hot dip coating process wherein the sink roller is constructed by casting using an austenitic stainless steel material and shows that the steel strip travels about the component or sink roll which is immersed in the bath. Therefore, it would have been obvious to modify the Ookouchi et al process for manufacturing a sink roller by casting using another known austenitic stainless steel material such as taught by JP '754 for the taught advantage of his austenitic stainless steel material – increased service life in high temperature environments. Thus claim 18 is obvious over the above cited references.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ookouchi et al 5,571,327 in view of HANDA ET AL 5,783,143.

HANDA ET AL is applied for the reasons noted above. HANDA ET AL fails to teach passing the steel strip about the component within the molten coating alloy. However, Ookouchi et al teaches an apparatus and method of coating a steel strip manufacturing a sink roller for a hot dip coating process wherein the sink roller is constructed by casting using an austenitic stainless steel material and shows that the

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steel strip travels about the component or sink roll which is immersed in the bath.

Therefore, it would have been obvious to modify the Ookouchi et al process for manufacturing a sink roller by casting using another known austenitic stainless steel material such as taught by HANDA ET AL for the taught advantage of his austenitic stainless steel material – increased service life in high temperature environments. Thus claim 18 is obvious over the above cited references.

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 5/27/2009 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A. Lamb whose telephone number is (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton, can be reached on (571)272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brenda A Lamb  
Examiner  
Art Unit 1734

/Brenda A Lamb/

Primary Examiner, Art Unit 1792